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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,511	06/26/2001	Paul K. Mazaika	07447.0058-00000	1121

22852 7590 10/15/2002

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[REDACTED] EXAMINER

HESS, DANIEL A

ART UNIT	PAPER NUMBER
2876	

DATE MAILED: 10/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	MAZAIKA, PAUL K.
Examiner	Art Unit
Daniel A Hess	2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
2a) This action is FINAL. 2b) This action is non-final.
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.
4) Claim(s) 1-4 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
5) Claim(s) ____ is/are allowed.
6) Claim(s) 1-4 is/are rejected.
7) Claim(s) ____ is/are objected to.
8) Claim(s) ____ are subject to restriction and/or election requirement.

Disposition of Claims

- 9) The specification is objected to by the Examiner.
10) The drawing(s) filed on 26 June 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
11) The proposed drawing correction filed on ____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____.
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 and 5. 6) Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informality: On page 1, under the heading ‘Technical field’ in the third line, the word ‘reliable’ should be ‘reliably.’
Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tow (US 5,315,098) in view of Hecht et al. (US 6,000,613).

Tow shows a method of encoding data in an image using ‘circularly asymmetric halftone dot patterns’ (abstract, lines 2-3). Tow’s encoding scheme is in the realm of hardcopy documents (column 1, lines 52-55). The dot pattern is modulated in terms of angular orientation (column 2, lines 43-50). The dot pattern (1-25) is rendered into a tiled cell block 61, producing a hard copy rendering of the image with digital data encoded thereon (figures 2-5; column 3, line 48 to column 4, line 48). Also, the color, size, and pixel density must be predetermined, i.e. they must have particular values selected before a cell can be created / rendered.

Tow fails to show that the code is invisible.

Hecht et al. (US 6,000,613) shows (column 1, lines 63-65) glyphs made using inks that are virtually invisible under normal lighting conditions. Also, ‘small size’ (column 1, line 67) can help hide the glyphs.

In view of Hecht’s teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known glyph construction using hard – to – see inks and small size as taught by Hecht into the teachings of Tow because this allows information to be hidden in documents, fighting forgery and foiling those who might attempt to pass fraudulent documents.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tow as modified by Hecht as applied to claim 1 above, and further in view of Sasanuma (EP 0 590 884 B1). The teachings of Tow as modified by Hecht have been discussed above.

Tow as modified by Hecht teaches the use of difficult-to-see inks. Tow as modified by Hecht fails to show what colors constitute difficult-to-see inks.

Sasanuma shows (column 2, lines 6-7) that yellow ink under certain circumstances is unnoticeable on white paper.

In view of Sasanuma, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known yellow ink for security markings on white paper because this makes the markings hard to detect since the color matching is so close.

5. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tow as modified by Hecht as applied to claim 1 above, and in further view of Mowry, Jr. (US 6,250,007) and Bloomberg et al. (US 6,076,738). The teachings of Tow as modified by Hecht have been discussed above.

Re claim 3: Tow as modified by Hecht shows tiled cell blocks of a predetermined size.

Tow as modified by Hecht fails to show that the size is a 12x12 matrix.

Mowry shows (column 6, lines 29-46) that dots are 6-12 pixels as compared to an overall square matrix of around 112 pixels. If a dot matrix is 9 pixels square then a matrix composed of such pixels will be 12x12.

In view of Mowry's teachings, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the old and well-known 12x12 matrix as taught by Mowry into the teachings of Tow as modified by Hecht because as this permits spacing between glyphs, which has advantages such as making the matrix less dense. A less dense matrix, as Bloomberg shows (column 10, lines 43-50) avoids some problems of blurring, which can destroy the information content of glyphs.

Re claim 4: Tow as modified by Hecht shows glyphs of some predetermined density.

Tow as modified by Hecht does not show that the predetermined pixel density is 2%.

Mowry shows low density glyphs (see figures 3 and 4). On visual inspection, the filled area in these glyphs may be around 2%. In addition, Mowry (column 6, lines 41-46) shows that a single dot may be 1/3% to around 1.2% of the total matrix so several dots as shown in figures 3 and 4 could correspond to around 2% of the matrix area.

In view of Tow as modified by Hecht, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known pixel density on the order of 2% as taught by Mowry into the teachings of Tow as modified by Hecht because as Bloomberg shows (column 10, lines 43-50) lower density avoids some problems of blurring, which can destroy the information content of glyphs.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel A Hess whose telephone number is (703) 305-3841. The examiner can normally be reached on 8:00 AM - 5:00 PM M-F.
7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G Lee can be reached on (703) 305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.
8. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


DH
September 30, 2002

Daniel A Hess
Examiner
Art Unit 2876


KARL D. FRECH
PRIMARY EXAMINER